



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,096	03/26/2001	Stepan Sokolov	SUN1P816/P5614	2837
22434	7590	12/16/2005	EXAMINER	
BEYER WEAVER & THOMAS LLP			SHAH, NILESH R	
P.O. BOX 70250			ART UNIT	
OAKLAND, CA 94612-0250			PAPER NUMBER	
			2195	
DATE MAILED: 12/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/818,096	Applicant(s) SOKOLOV ET AL.	
	Examiner Nilesh Shah	Art Unit 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 6-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/3/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1,3,4,6-26 are presented for examination.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1,3,4,6-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
3. Claims 1,3,4,6-9, 16-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A method is not tangibly embodied in a manner so as to be executable. Specifically, as claimed, it is uncertain what performs each of the claimed method steps. Moreover, each of the claimed steps, inter alia, (checking, loading) can be practiced mentally in conjunction with a pen and paper.
4. Claims 10-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A class file is not tangibly embodied in a manner so as to be executable. The claimed steps do not define a machine or computer implemented process(see MPEP 2106).
5. Claims 13-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A class file is not tangibly embodied in a manner so as to

Art Unit: 2195

be executable. The claimed steps do not define a machine or computer implemented process (see MPEP 2106).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - a. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
7. Claims 1, 3, 4, 6-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al (6,072,953) (hereinafter Cohen) in view of Lafuse (5,878,430).
8. As per claim 1, Cohen teaches the invention substantially as claimed including a method for selectively loading some but not all components of a class file into a virtual machine that can execute virtual machine instructions (col. 3 lines 50-56; col. 4 lines 3-8; col. 6 lines 18-24; col. 6 lines 40-55), the class file including an attributes section and a plurality of components including virtual machine instructions that can be executed by said virtual machine said method comprising:

loading said one or more selected components of said class into said virtual machine (col. 4 lines 3-8; col. 6 lines 18-24; col. 6 lines 40-55).
9. Cohen does not specifically teach the use of checking a load attribute.

Lafuse teaches checking a load attribute in the attribute section of the class file to identify one or more selected components of said class file for loading into said virtual machine

Art Unit: 2195

(fig. 3, elements 300, 317; table 1-2; fig. 4, element 410; fig. 13; col. 1 lines 18-40; col. 2 lines 43-55; col. 4 lines 27-55; col. 12 lines 45-67; col. 11 lines 25-35); and not loading one or more other components of said class file into said virtual machine that are not identified for loading in the attributes section of the class file, whereby components of the class file may be selectively loaded into the virtual machine by reference to the attributes section of the class file (col. 2 lines 43-55; col. 4 lines 27-55; col. 12 lines 45-67; col. 11 lines 25-35).

10. It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Lafuse and Cohen because Lafuse method of loading certain attributes would improve Cohen's system by allowing the user to selected which attributes they wanted to load thus making the system more user friendly and adaptable.
11. As per claim 3, Cohen teaches a method wherein said method further comprises: marking one or more components of said class for loading into said virtual machine (col. 4 lines 3-8; col. 6 lines 18-24; col. 6 lines 40-55).
12. As per claim 4, Cohen teaches a method of selectively loading a class file into a virtual machine, determining whether one or more components of said class file have been marked in said class file for loading into said virtual machine (col. 4 lines 3-8; col. 6 lines 18-24; col. 6 lines 40-55).

Lafuse teaches wherein said marking is done by defining an load attribute in said class file that indicates that one or more components of said class file have been selected for

Art Unit: 2195

loading into said virtual machine associated with said object-oriented class and wherein said determining operates to determine whether one or more components of said class have been marked to be loaded into said virtual machine based on said load attribute loading said one or more selected components of said class into said virtual machine(fig. 4, element 410; col. 1 lines 18-40; col. 2 lines 43-55; col. 4 lines 27-55); and not loading one or more other components of said class file into said virtual machine that are not identified for loading in the attributes section of the class file, whereby components of the class file may be selectively loaded into the virtual machine by reference to the attribute section of the class file(col. 2 lines 43-55; col. 4 lines 27-55; col. 12 lines 45-67; col. 11 lines 25-35).

13. As per claim 6, Lafuse teaches a method wherein said load attribute in said class file is implemented as an attribute table (tables 1-11; col. 8 lines 51-65; col. 9 lines 55-67).

14. As per claim 7, Cohen teaches a method selectively loading a class file into a virtual machine, said method comprising:

loading said one or more components of said class file into said virtual machine when said determining determines that said one or more components of said class file have been marked in said class file for loading into said virtual machine(col. 4 lines 3-8; col. 6 lines 18-24; col. 6 lines 40-55).

Lafuse teaches determining whether one or more components of said class file have been marked in said class file for loading into said virtual machine, wherein said marking is

done by defining a load attribute in said class file that indicates that one or more components of said class file have been selected for loading into said virtual machine, and wherein said determining operates to determine whether one or more components of said class have been marked to be loaded into said virtual machine based on said load attribute (fig. 4, element 410; col. 1 lines 18-40; col. 2 lines 43-55; col. 4 lines 27-55; col. 12 lines 45-67; col. 11 lines 25-35);

not loading one or more other components of said class when said determining determines that said other one or more components of said class have not been marked to be loaded into said virtual machine (fig. 4, element 410; fig 13; col. 1 lines 18-40; col. 2 lines 43-55; col. 4 lines 27-55); and

wherein said load attribute table in said class file is implemented as an attribute table which includes one or more offsets of one or more components of said class file wherein said one or more offsets can be used to determine the location of said one or more components in said class file, thereby allowing said one or more components to be loaded into said virtual machine based on said one or more offsets (tables 1-11; col. 8 lines 51-65; col. 10 lines 10-30; col. 9 lines 55-67).

15. As per claim 8, Lafuse teaches a method wherein said determining whether one or more components of said class have been marked to be loaded into said virtual machine comprises: initiating a first sequential read of said class file; and determining whether an attribute table has been found for said class file (col. 9 lines 50-65; col. 8 lines 51-65; col. 10 lines 10-30; col. 9 lines 55-67).

16. As per claim 9, Lafuse teaches a method wherein said method further comprises:

initiating a second sequential read of said class file (col. 10 lines 50-60; col. 11 lines 5-15; col. 12 lines 15-33);

determining, during said second sequential read, whether a component of said class file has been encountered, and determining whether of said class file a component has a corresponding entry in said attribute table of said class file when said component has been encountered (col. 11 lines 5-15; col. 12 lines 15-33).

17. As per claim 10, Cohen teaches a class file suitable for loading into a virtual machine, said class file being associated with an object-oriented class, and said virtual machine operating in an object oriented computing system, said class file comprising:

a plurality of components (col. 4 lines 3-8; col. 6 lines 18-24; col. 6 lines 40-55).

Lafuse teaches an attribute portion that includes a load attribute section that includes information identifying one or more of the components of said class for selective loading into the virtual machine, wherein a class loader associated with the virtual machine may reference the load attribute portion of the class file to identify one or more selected components to be loaded into the virtual machine without loading other components of the class file into the virtual machine, whereby some but not all of the components of the class file may be loaded into the virtual machine with the components that are selected for loading into the virtual machine being identified by reference to the load attribute

portion of the class file (fig. 4, element 410; col. 1 lines 18-40; col. 2 lines 43-55; col. 4 lines 27-55).

18. Claim 11 is rejected based on the same rejection as claim 6 above.

19. As per claim 12, Lafuse teaches a class file wherein said attribute table includes offsets of one or more components of said class file (tables 1-11; col. 8 lines 51-65; col. 10 lines 10-30; col. 9 lines 55-67).

20. As per claim 13, Cohen teaches a computer readable media including computer readable code representing a class file suitable for loading into a virtual machine said class file being associated with an object-oriented class and said virtual machine operating in an object-oriented computing system (col. 4 lines 3-8; col. 6 lines 18-24; col. 6 lines 40-55). Lafuse wherein said attribute portion represents information about one or more components of said class that have been marked to be loaded into said virtual machine (col. 2 lines 43-55; col. 4 lines 27-55); and wherein said computer readable code representing said class file comprises computer readable code representing a load attribute portion of said class file (fig. 4, element 410; col. 1 lines 18-40; col. 2 lines 43-55).

21. Claims 14-15 are rejected based on the same rejection as claims 11-12 above.

22. As per claim 16, Cohen teaches a method of loading a class file into a virtual machine, said class file being associated with an object-oriented class, and said virtual machine operating in an object-oriented computing system, said method comprising:
loading only said one or more components of said class file into said virtual machine (col. 4 lines 3-8; col. 6 lines 18-24; col. 6 lines 40-55).
Lafuse teaches providing a load attribute for said class file (fig. 4, element 410; col. 1 lines 18-40); and
associating one or more components of said class file with said load attribute to indicate that said one or more components of said class file are to be loaded (col. 1 lines 18-40; col. 2 lines 43-55; col. 12 lines 45-67; col. 11 lines 25-35).
23. Claims 17-18 are rejected based on the same rejection as claims 11-12 above.
24. Claim 19 is rejected based on the same rejection as claim 8 above.
25. As per claim 20. Lafuse teaches a method wherein said determining operates to search said attribute table for an offset associated with said at least one component of said class file (tables 1-11; col. 8 lines 51-65; col. 10 lines 10-30; col. 9 lines 55-67).
26. As per claim 22, Cohen teaches a method for selectively loading components of a class file into a virtual machine, wherein said class file includes a plurality of components

Art Unit: 2195

including Bytecodes which can be loaded into and executed by said virtual machine (col. 6 lines 5-24; col. 5 lines 11-34).

Lafuse teaches determining whether said class file has a load-attribute, wherein said load-attribute has been defined as an attribute for said class file and includes a list of one or more selected components of said class file which has been selected for loading (fig. 4, element 410; fig. 13; col. 1 lines 18-40);

reading said load-attribute when said determining determines that said class file has a load attribute(col. 10 lines 10-30; col. 9 lines 55-67); and

loading into said virtual machine said one or more selected components of said class file after said reading of said load-attribute, wherein the nature of loading of said plurality of components of the class file is dictated at least in part by said reading of said load-attribute (col. 12 lines 45-67; col. 11 lines 25-35).

27. As per claim 23. Lafuse teaches a method wherein said one or more selected components of said class file are one or more methods of said class file (col. 1 lines 18-40; col. 2 lines 43-55 ; col. 12 lines 45-67; col. 11 lines 25-35).

28. As per claim 24. Lafuse teaches a method wherein said one or more selected components are not native methods (tables 1-11; col. 4 lines 25-35; col. 3 lines 15-24).

29. As per claim 25. Lafuse teaches a method wherein said method further comprises: not loading into said virtual machine one or more components of said class file which have

Art Unit: 2195

not been listed in said load attribute (fig. 4, element 410; col. 1 lines 18-40; col. 2 lines 43-55).

30. As per claim 26. Lafuse teaches a method wherein said components of the class file include a plurality of Java-based (non-native) components including methods, constant pools, and fields, and wherein at least one of said plurality of Java-based (non-native) components which have not been listed in said load attribute is not loaded into said virtual machine (tables 1-11; col. 4 lines 25-35; col. 3 lines 15-24).

Response to Arguments

31. Applicant's arguments filed 9/27/05 have been fully considered but they are not persuasive. Applicant states that Lafuse does that teach a load attribute in an attribute section of a class file. However, Lafuse clearly teaches the use of a load attribute in an attribute section of a class file (fig. 3, elements 300, 317; table 1-2; fig. 4, element 410; fig.13; col. 1 lines 18-40; col. 2 lines 43-55; col. 4 lines 27-55; col. 12 lines 45-67; col. 11 lines 25-35). In addition, Berry et al (6,026,237) teaches the use of loading selected components of a class file (col. 2 lines 39-50; col. 4 lines 10-26; col. 3 lines 55-64; col.8 lines 5-19).

Conclusion

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Berry et al (6,026,237) teaches the use of loading selected components of a class file (col. 2 lines 39-50; col. 4 lines 10-26; col. 3 lines 55-64; col.8 lines 5-19).

33. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nilesh Shah whose telephone number is (571)272-3771.

The examiner can normally be reached on 9-5.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2195

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nilesh Shah
Examiner
Art Unit 2195

NS
December 5, 2005


MENGHAI T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100